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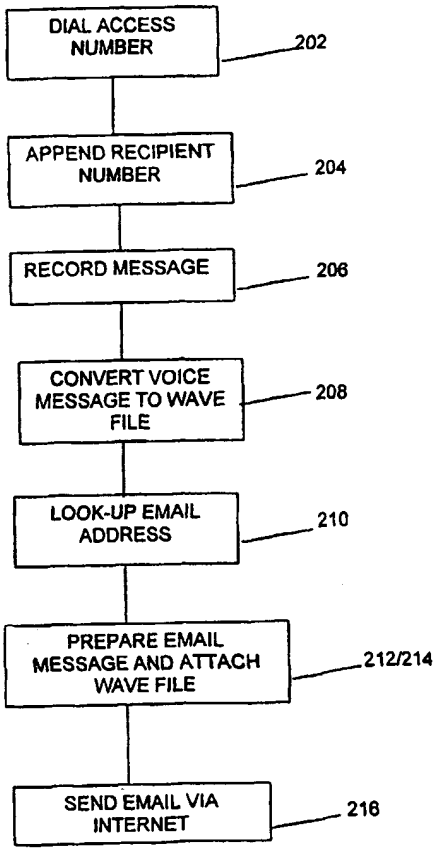
(54) Title: A METHOD FOR TELEPHONIC SERVICE TO SEND E-MAIL

(57) Abstract

A method and a server for sending an e-mail message from a telephone is provided. The method includes the steps of a sender dialing a pre-allocated service number associated with a server (202), appending the telephone number associated with the addressee to the dialed service number and transmitting a voice message (204), the voice message being converted to an attached wave file in e-mail format by the server (208) and the server sending e-mail format message via the Internet to said addressee's associated e-mail address (216).



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A METHOD FOR TELEPHONIC SERVICE TO SEND E-MAIL

FIELD AND BACKGROUND OF THE INVENTION

Sending e-mail is of great importance and is one of the major uses of the Internet.

Forwarding of e-mail to a fax is well known and an example can be seen in the functions of software such as Microsoft's "Outlook" application. Forwarding of e-mail to a telephone is also known, such as the Mailpush service provided by several cellular telephone companies, for example, as described on their web site (http://www.mailpush.com). In this method a server computer checks the e-mail box of each registered client and forwards the e-mail to the mailbox owner's telephone and reads the text through the voice modem or CTI card (for example Dialogic's Proline/2V or Dialogic/4, Dialogic Corporation, 1115 Route Ten, Parsippany, N.J. 070-4596, USA).

A voice message can be transmitted as an attached wave file that can be played to the telephone directly, or be converted to text using a Speech-to-text engine such as commercially available from IBM and Lernout & Hauspie). The receiver of the e-mail can record a reply wave file through the telephone and use the reply function of the e-mail software to send a reply via the telephone.

At present, people can only send e-mail if they have a computer and the appropriate software and connection to an ISP (Internet Service Provider). Moreover, the sender needs to be able to operate the computer and the software. Many telephone users do not have computers or access to e-mail. Moreover, in order to send e-mail one requires the Internet address.

A method of sending voice messages between remotely located telephones and text messages as voice messages from a computer to remotely located telephones, utilizing e-mail properties, is also described in PCT Patent Application: PCT/IL99/00516, assigned to the Assignees of the present invention and incorporated herein by reference.

SUMMARY OF THE INVENTION

The present invention provides a method of sending e-mail through the telephone.

There is thus provided in accordance with a preferred embodiment of the invention, a method and a server for sending an e-mail message from a telephone is provided. The method includes the steps of a sender dialing a pre-allocated service number associated with a server, appending the telephone number associated with the addressee to the dialed service number and transmitting a voice message, the voice message being converted to an attached wave file in e-mail format by the server and the server sending the e-mail format message via the Internet to said addressee's associated e-mail address.

Furthermore, in accordance with a preferred embodiment of the invention, the attached wave file is compressed.

Furthermore, in accordance with a preferred embodiment of the invention, the addresses telephone number is converted to an e-mail address via a look-up table. The look-up table is stored within the server or is created by the sender and stored at an Internet web site.

Furthermore, in accordance with a preferred embodiment of the invention, the look-up table on the Internet web site includes the sender's telephone number and at least one email address. The look-up table further includes a security code.

There is also provided in accordance with a preferred embodiment of the invention, a server for forwarding incoming voice messages as e-mail messages. The server includes a Computer Telephone Integration (CTI) card, a converter in communication with the CTI card for converting incoming voice messages to email

format, a look-up table for associating the recipient's telephone number with the recipient's email address and a forwarder for sending the message to the recipient's email address.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be understood and appreciated more fully from the following detailed description taken in conjunction with the appended drawings, in which:

Fig. 1 is a schematic block diagram illustration of the server and method for sending email via the telephone service, constructed and operative in accordance with a preferred embodiment of the present invention; and

Fig. 2 is a flow chart illustration of the method for sending email via the telephone.

DESCRIPTION OF THE PRESENT INVENTION

Reference is now made to Figs. 1 and 2. Fig. 1 is a schematic illustration of the method for sending email via the telephone service, constructed and operative in accordance with a preferred embodiment of the present invention. Fig. 2 is a flow chart illustration of the method for sending email via the telephone.

According to a preferred embodiment of the present invention, the operation of the service utilizes a Proxy Server 20.

An user calls a special service number such as *100 or any legitimate keys provided by the PTT company (step 202) which is directed to the server 20. The sender then dials the number of the person to whom he wishes to send e-mail (step 204). Then he records the message (step 206) and the voice message is converted to an attached wave file (preferably compressed) in e-mail format (step 208).

The telephone number is referenced against one or more e-mail addresses stored in a look-up table (LUT) (step 210) and the message is placed in the "To:" box of the e-mail (step 212). The "From:" box is fed by the caller's number, which is received by the system by means of the caller ID function of the public switch (step 214). The e-mail is then sent via the Internet 40 to the ISP in the regular manner as e-mail 42 (step 216).

The look-up table is a table that correlates a telephone number with one, or several, e-mail addresses. It can be created manually or preferably through the Internet 40.

In the Internet option, a special web site 50 is created by the service provider in which the user inserts his telephone number 52 and the e-mail address

54. In addition, a special security code 56, which is not public, is also preferably entered to avoid misusing this service by illegitimate users who wish to "steal" messages.

The server 20 is similar to the present Assignees T-Mailer service and consists of a PC in which CTI cards which convert analogous voice data into digital data, for example, the DI60SC-LS card by Dialogic. These cards usually have the caller ID function which can detect and register the telephone number from which the call was made. When the CTI card receives a call, a special software prompts the caller to dial the addressee's number and record his message. The recorded message is then compressed as a standard compressed wave file. The software prepares and transfers the e-mail to the e-mail software which can be in the server. The e-mail server may contain any e-mail software, for example, MS Outlook, Eudora, Outlook Express, or Lotus Notes. The message is then submitted as a regular e-mail through the Internet.

The server 20 is similar to the proxy server described in PCT Patent Application: PCT/IL99/00516 assigned to the Assignees of the present invention and incorporated herein by reference. The server 20 generally comprises a Computer Telephone Integration (CTI) card connected to a wave API (Application Program Interface) and a message storage device. The server 20 further comprises components such as a voice proxy telephone server and a transport provider for receiving and forwarding voice/text messages.

A method for forwarding and storing a telephone call from a caller receiving a "no answer" or "busy" signal is described in PCT Patent Application:

PCT/IL99/00591, assigned to the Assignees of the present invention and incorporated herein by reference.

This present invention has many advantages over the present art. For example, e-mail can be send without the need for a computer with the appropriate software and a connection to an ISP and an Internet address. In the present method, the Internet mail address is linked to the addressee's regular telephone number.

Another advantage is that people abroad who wish to obtain e-mail can put their telephone number in their country code along with their e-mail address and obtain the e-mail at the cost of a local call.

Servers 20 can be placed all over the world and enable one to send e-mail through out the world at the price of a local call.

It will be further appreciated that the present invention is not limited by what has been described hereinabove and that numerous modifications, all of which fall within the scope of the present invention, exist. Rather the scope of the invention is defined by the claims which follow:

CLAIMS

1. A method of sending an e-mail message from a telephone, comprising the steps of:

   a sender dialing a pre-allocated service number associated with a server;

   the sender appending the telephone number associated with the addressee to the dialed service number ;

   the sender transmitting a voice message

   said voice message being converted to an attached .wave file in e-mail format by the server; and

   said server sending the e-mail format message via the Internet to said addressee's associated e-mail address.

2. The method of claim 1, wherein the attached .wave file is compressed.

3. The method of claim 1, wherein the addresses telephone number is converted to an e-mail address via a look-up table.

4. The method of claim 2, wherein the look-up table is stored within the server.

5. The method of claim 2, wherein the look-up table is created by the sender and stored at an Internet web site.

6. The method of claim 5, wherein the look-up table comprises the sender's telephone number and at least one email address.

7. The method of claim 6, wherein the look-up table further comprises a security code.

8. A server for forwarding incoming voice messages as e-mail messages comprising:

computer Telephone Integration (CTI) card;

a converter in communication with the CTI card for converting incoming voice messages to email format;

a look-up table for associating the recipient's telephone number with the recipient's email address and

a forwarder for sending the message to the recipient's email address.

9. The server of claim 8, wherein the voice message is converted to an attached .wave file.

10. The server of claim 9, wherein the attached .wave file is compressed.

11. A method for converting a voice message to a recipient telephone number and sending it as an email message, comprising the steps of:

converting the voice message to an attached .wave file in e-mail format; and

obtaining the email address of the recipient from a look-up table in which the recipient telephone number is associated with at least one e-mail address of the recipient.

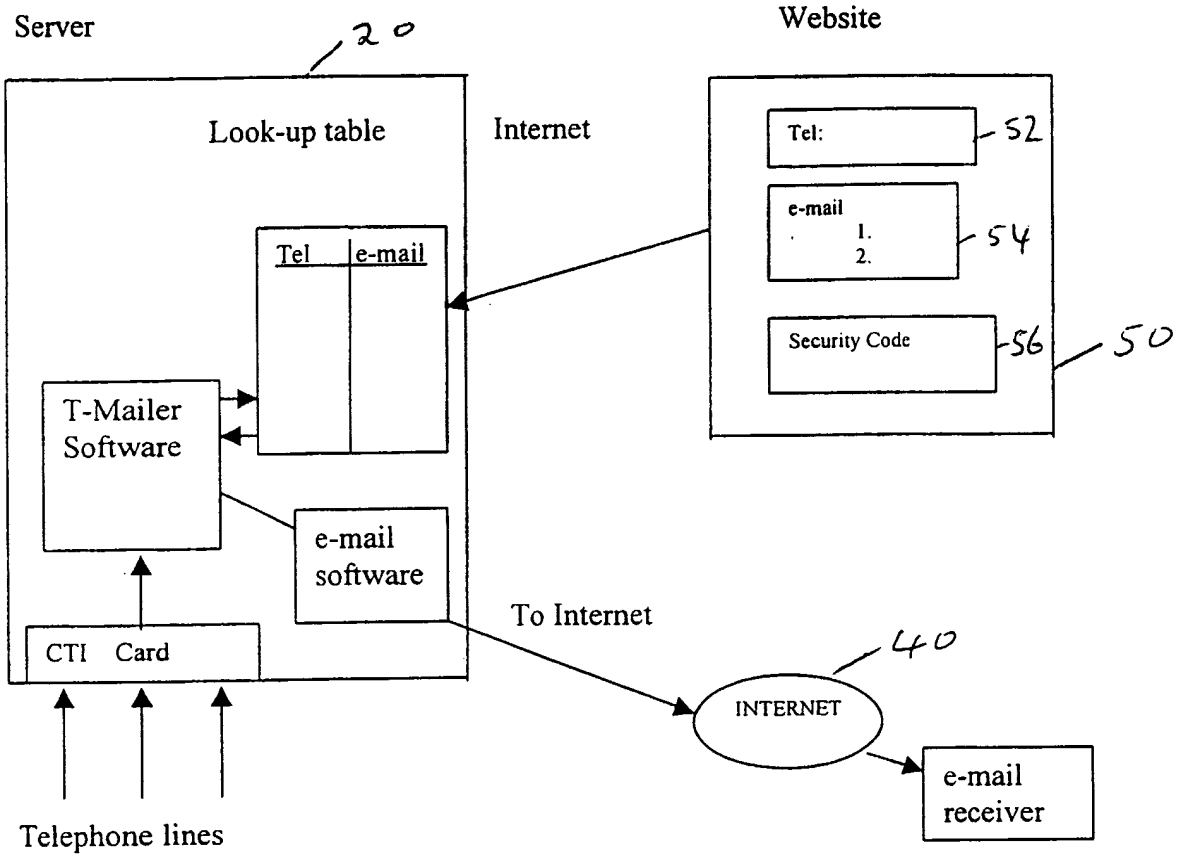
Server
20
Website
Look-up table
Internet
Tel:
52
e-mail
1.
2.
54
Tel
e-mail
Security Code
56
50
T-Mailer
Software
e-mail
software
To Internet
CTI Card
40
INTERNET
e-mail
receiver
Telephone lines

Fig. 1

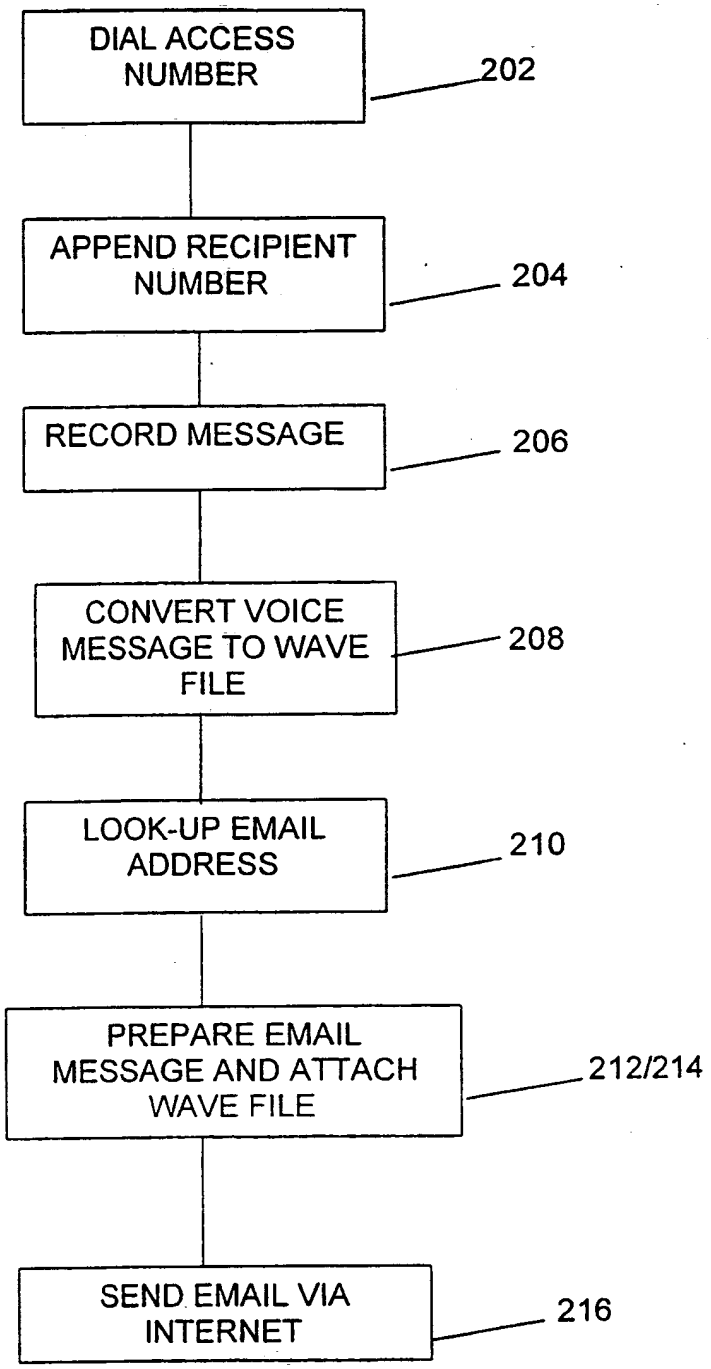
DIAL ACCESS NUMBER
202
APPEND RECIPIENT NUMBER
204
RECORD MESSAGE
206
CONVERT VOICE MESSAGE TO WAVE FILE
208
LOOK-UP EMAIL ADDRESS
210
PREPARE EMAIL MESSAGE AND ATTACH WAVE FILE
212/214
SEND EMAIL VIA INTERNET
216

FIG. 2

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL00/00085

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :H04M 1/64, 11/00, 3/42; H04Q 7/20; G06F 5/00, 17/30
US CL :Please See Extra Sheet.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 379/67.1, 88.13, 88.17, 93.24, 100.08, 201,900; 455/417,445,461; 707/2,102

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

none

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

East

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,557,659 A (HYDE-THOMSON) 17 September 1996, Col. 12, line 55 through Col. 13, line 12.	1-11
X	US 5,717,742 A (HYDE-THOMSON) 10 February 1998, Figure 7.	1-11
X	US 5,608,786 A (GORDON) 04 March 1997, Col. 2, lines 18-43.	1,8,11
A	US 5,742,905 A (PEPE et al.) 21 April 1998, Col. 5, lines 54-67 and Col. 6, lines 1-51.	1-11
A	US 5,826,034 A (ALBAL) 20 OCTOBER 1998, Col. 2, lines 19-59.	1-11

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL00/00085

A. CLASSIFICATION OF SUBJECT MATTER:
US CL :

379/67.1, 88.13, 88.17, 93.24, 100.08, 201,900; 455/417,445,461; 707/2,102